

Exploring health care' experiences on how to inform the patient to get infected with COVID-19: A qualitative study

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ABSTRACT

Background: COVID-19 disease is a new disease that is very important how informing the patient about it. This study was conducted with the aim of investigating the experiences of the nurses' staff on how to inform the patient to get infected with COVID-19. **Methods:** Twelve health care providers (8 nurses and 4 anesthesiologists) in an educational and medical center in the city of Ilam in From February to June 2020 participated in the study with purposeful sampling. Semi-structured interviews were used to collect data, and the study began with the open question, "Describe your experience of identifying the disease in patients with COVID-19". To analyze the data, the conventional qualitative content analysis was performed. **Results:** Participants in this study included 12 medical personnel, of which 7 (58.4%) were male and 5 (41.6%) were female. Based on the findings, 2 main themes and 7 sub-themes were extracted. The main themes extracted from this study include A) Passing the patient of the purgatory of COVID-19 diagnosis including four sub-themes: 1) Waiting for a diagnosis, 2) Announcing step by step the diagnosis, 3) giving information, 4) acceptance or resistance; B) Entering the important others to the purgatory of COVID-19 diagnosis including three sub-themes: 1) Entering the key family members, 2) Entering the physician, 3) Entering the relatives working as medical staff. **Conclusion:** Diagnosing the disease of COVID-19 is like a purgatory for patient and staff. To help the patient get through this purgatory, important others are introduced by the staff. Eventually the patient either accepts the disease or resists accepting it.

Keywords: COVID-19, Content Analysis, Diagnosis, Qualitative Research

1. INTRODUCTION

COVID-19 is an unknown disease that spread rapidly in 2019 and has caused many challenges for the health care system (Li et al., 2020; Na Zhu et al., 2020). This disease has caused a crisis for patients, and for this reason, patients and the family of this group of people have faced various challenges and stresses

(Ying et al., 2020; Yang et al., 2020). Due to the fact that this disease is an unknown disease and, in many cases, has been fatal, it is very important how informing the patients about it (Ying et al., 2020; Xiang et al., 2020).

The bad news transmission is a difficult task for the health care team, and it is as stressful for the care team as it is for the patient (Shaw et al., 2013; Hahne & Liang, 2020). In the health care system, nurses are one of the groups that play an important role in transmitting bad news (Abbaszadeh et al., 2014; González-Cabrera et al., 2020). Basically, telling the diagnosis is the task of the physicians, but this task has been transferred to other staff such as nurses in special situation like COVID-19 crisis. This can create special conditions and require special decisions. A qualitative study can shed light on unknown aspects of decision-making in announcing bad news of having COVID-19 disease to a patient.

This study was conducted with the aim of explanation the experiences of the nurses' staff of informing the patients about COVID-19 infection.

2. METHODS

This study is a qualitative study using conventional content analysis method that has been performed on the group of nurses working at the university hospital of Shahid Mostafa Khomeini Hospital (Ilam University of Medical Sciences), which has been the main reception center for patients with COVID-19 From February to June 2020. Criteria for entering the study included having a bachelor's degree in nursing or anesthesia and having informed written consent to participate in the study. The criteria for leaving the study included the withdrawal of participants at each stage of the study.

After obtaining permission from the relevant authorities, a list of nurses who care the patients with COVID-19 was extracted and they were asked to determine the time and place of the study if they agreed to participate. Due to the prevalence of COVID-19 virus and the role of face-to-face communication in the spread of this virus, all interviews were conducted virtually. If the staff wanted, video calls were used, otherwise voice calls were used. Prior to the interview, the necessary information was given to the personnel regarding the optional participate or not in the study, and conscious consent was obtained to record their voice. It was also explained that the information obtained from this study will be reported without a name and surname. They were also asked to sign a written consent form and send the scanned file to the researcher.

In this study, 8 nurses and 4 anesthesia experts were entered to the study until reach data saturation by purposeful sampling. The main method of data collection at this stage was deep and semi-structured interviews. In this study, a series of pre-designed and related to research questions were used to guide the interview and collect data. Accordingly, the interview initially began with general questions such as "Describe your experience of identifying the disease in patients with COVID-19" and was followed with the Follow-up (Probing) questions Like "Please explain more about this?", "What do you mean?" "Can you clearly explain to me what you mean by a concrete example so that I can better understand what you are saying?". Of course, none of the questions were definite and could be adjusted or corrected in response to the information received during the investigation. At 10th interview data saturation obtained and no new Semantic units (Initial codes) emerged, but two more interviews were conducted to ensure data saturation. At the end of the interview, while appreciating and thanking the cooperation of the staff, they were asked to contact the researcher in case of any discussion that can be useful for the purpose of the research and to help complete the information. The duration of each interview was approximately 45 to 60, and interviews were conducted in 2 nurses in 2 sessions.

After the interviews, the text of the interview was checked by two researchers and the recorded sounds were matched with the written text. To analyze the data, Graneheim and Lundman (2004) methods were performed using MAXQDA software. For this purpose, immediately after each interview, the interviews, word-for-word, were transcribed and for managing were entered in MAXQDA version 10 software, then were reviewed and re-read several times to get a general understanding of their concepts. In the next step, related to the purpose of the research, an initial code was assigned to each key phrase. The same participant's words or a similar name that symbolized the phenomenon were used for coding. Then the initial classification of the codes was done. Codes that were conceptually similar were classified as subcategories and was considerate a name for each subcategory. When each new code was generated during the initial coding, that code was compared to other existing codes, and it was placed in the subcategory that had the most in common. Then the similar and related subcategories came together and formed a category. Finally, a general description of the research topic was prepared and reported by creating categories and placing in the main categories or sub-categories. To evaluate the data Rigour we used the 4 evaluation criteria of Lincoln and Guba (Graneheim et al., 2004; Holloway et al., 2016; Casadevall & Pirofski, 2020).

Data credibility was assessed by controlling the derived data with the research team and assuring them of long- term engagement of the researchers with the research, and allocating sufficient time for analyzing. Data confirmability was confirmed by external supervisors. Transferability of data was conducted by achieving similarities of the semantic differences and finding more

global meanings. To achieve dependability, the same sentences of the participants were used as evidence, the research process were documented. Audibility of data was made by external observers.

3. RESULTS

Participants in the study included 12 medical personnel (8 nurses and 4 anesthesiologists), of whom 7 (58.4%) were male and 5 (41.6%) were female. Also, their age range ranged from 23 to 48 years, and their work experience ranged from 2 to 18 years. Based on the findings of this study, after identifying the key concepts of sentences and paragraphs as a code, 250 initial codes were extracted and then classified into 5 categories based on the similarities and differences that existed in these codes. Overview of these categories and codes, 2 main themes and 7 sub-themes were extracted, which are summarized in Table 1. The main themes extracted from this study included A) How to transmit bad news and B) Facilitating factors for informing the patients about their COVID-19 infection (Table 1).

Table 1 Main extracted themes and categories

CATEGORIES	Themes
Waiting for a diagnosis	Passing the patient of the purgatory of COVID-19 diagnosis
Announcing step by step the diagnosis	
Giving information	
Acceptance or resistance	
Entering the key family members	Entering the important others to the purgatory of COVID-19 diagnosis
Entering the physician	
Entering the relatives working as medical staff	

The first extracted category, how to transmit bad news, had 4 sub-categories including 1) no transmit of COVID-19 to patients until the definitive diagnosis, 2) Gradual announcement of COVID-19 disease (step by step), 3) Announcing the news of infection in proportion to the level of health literacy of the individual, 4) Helping to accept the new disease in patients with a definitive diagnosis of COVID-19). Can be mentioned in the following some part of the interviews.

Passing the patient of the purgatory of COVID-19 diagnosis

1. Waiting for a diagnosis

"Sometimes someone came to the hospital and said, 'I have a corona. Why don't you take care of me?' Then he was hospitalized. We did the tests and CT SCAN. We gave necessary health education to him. Later in CT, his symptoms were similar to those of COVID-19. We don't label him, we say sorry, we're suspicious of this, we need to do more controls and you have to be hospitalized for 24 to 48 hours. We don't even mention the name quarantine to avoid fear. he resisted and said: "there Is no problem on my CT-scan and I want to go" but we can resolve this with Paying attention, patience and giving necessary health education from the healthcare personnel we tell them that "no disease has been diagnosed for you at the moment and you should be hospitalized for a few days in order to improve your condition"(p1)

2. Announcing step by step the diagnosis

I'm trying to get the news of the disease to the patient gradually. For example, first I want to say, "Look, your lungs are infected but don't worry, it's probably due to the flu. Now we're going to take a few more tests to make sure you don't have this new infection", and then gradually informed the patient that has COVID-19, in this way I try to don't transmit fear."(P5)

"Well, what we've learned now experimentally is to say first that Corona is not certain now. We just want you to be treated and supported. We'll take care of you for some days so in those days we're trying to explain all condition to patients."

"First, we tell him the differential diagnoses, in a very short time we give him a detailed description and education about the shortness of breath and the symptoms he has then the differential diagnoses, and we don't label him. It is very important that we do not label the patient that you must have Corona, this helps a lot to get accepted it. the person gradually accepts that. Yeah, the mortality rate of Corona is much lower than other diseases, even the flu, but its prevalence is higher. This helps patients to accept and admit in a better mood and They have no problem with this."(P8)

"First of all, we make the issue so unimportant so that the patient is convinced to rest in the hospital for at least a day or two. Then in these one or two days, we try to say all to the patient. Because if I say you have corona, the patient may run away and not be hospitalized at all." (P3)

3. Giving information

"I ask him to see if he knows anything about the corona. Then I give him the necessary explanations about the symptoms and the treatment and invite him to keep his cool. I give him some information about the amount of treatment and mortality. Then I tell him that the symptoms you have are very similar to the symptoms of this disease, but you may don't get it, but in order to prevent and treat, if you have been infected, you should be monitored for a few days to make sure. Don't worry about it. The conditions here are completely isolated and if you are not infected, you will not get infected here. Please collaborate with us for you and your family. "(p1)

"Well, of course we want to tell someone who is in better health literacy that you have corona than someone who is not literate at all. A health literate person knows that whoever gets corona dies, but people may die of corona fear." (P7)

4. Acceptance or resistance

"Some patients say, I've had a heart attack before. I've had this or that disease before and these symptoms are fore that, both he and his family are trying to justify it.' And justify them need to time and now is as a challenge for us "(p10)

"In the early days, they were very resilient and they try to justify that their disease is not due to corona and is due to something related to a previous problem. The doctor and the nurse and the rest of our colleagues tried to calm them down and make them deal with the problem logically." (P9)"(P9)

Entering the important others to the purgatory of COVID-19 diagnosis

The second Extracted category was the Facilitating factors for informing the patients about their COVIV 19 infection with three sub-categories, including: Transmission of the news of infection by key people in the family, Transmission of the news of infection by the doctor, Transmission of the news of infection by the patient's relatives who were members of the healthcare personnel.

Entering the key family members

"We try to use someone from the family for informing the patient about the diagnosis, who has the most information and awareness, is a calm person, and the others listen to him. Also, we try to say them slowly by explaining their first condition or speaking about their history and initial problems. We try to say them step by step, never immediately.

"The announcement of corona may cause the patient to be worry and become very stressed. So, we need someone to help and relax the patient. We are trying to spread the word about the disease through the key people in the family." Of course, sometimes, because they are old and also have some disease and they risk getting the infection, we had to call them on the phone." (P8)

"Now in Corona's condition, things are much worse for us because the family doesn't have access to his patient anyway, and we're the only connection between the patient and his family, and now we have to give the news of Corona to patient's family. I saw a lot of death, but it's very difficult to call the family of these patients " (p3)

Entering the physician

"Reporting bad news is one of the duties of a doctor, and we try to refer the patient to the doctor first to find out if he or she has the disease. If the patient's doctor is not available, we will try to spread the bad news "(p11)

"I informed a patient about his diagnosis (corona), and then the patient asked me so many questions that I was really confused. How you know this disease is a new disease, and although I study every day and try to update my information, but I'm really afraid I won't give incorrect information to patients. That's why I try not to say something I don't know, and refer them to the doctor, because the doctor is really in the process of diagnosing and treating the disease, and my information may be incomplete in this argument. "(p12)

Entering the relatives working as medical staff

"One of our problems with these patients is they don't accept they have the disease, so we have to get help from people in the family who are members of the medical staff to inform the patients about their diagnosis because the patients accept more from them" (p4).

"It's really hard to tell a patient that he has COVID-19 and nothing is clear about your treatment. For example, we had a case whom both the patient and her husband/ his wife were our colleges. When he/she asked me: "I have COVID-19? I didn't know how and what can I say, so, I told him/her: "your wife / husband and I would control your medical record and tell you the result". It was really hard for me. "(P2)

4. DISCUSSION

COVID-19 is an emerging disease that has become very prevalent and has created a lot of challenges for the treatment team (Bernard & Ninot, 2011; Zhang & Liu, 2011), and it seems that informing the patient about the COVID-19 disease is one of the healthcare personnel's challenges infected with COVID-19. This qualitative study aimed at explaining the experiences of nursing staff in identifying COVID-19 in patients showed that the process of diagnosing COVID-19 for patients and staff was to cross a purgatory.

According to the findings, one of the sub-categories was the Gradual announcement of COVID-19 disease. Also, another sub-category extracted was transmission of the news of infection by the doctor, which is consistent with the results of a study by Abbaszadeh et al., (2014), that 82.4% of nurses had a positive attitude towards announcing bad news by physicians.

Another sub-category of the study was the transmission of bad news by family members of the patient, which was consistent with the results of a study by Abbaszadeh et al., (2014) which one of the extracted categories was the "Effective communication between nurse or patient and his family". In the present study, the nurses who participated in the study used "transmission of news by key family members" and "transmission of bad news by relatives who were medical staff members" to announce the bad news to patients. The study by Seresht et al., (2013) shown that 94.1% of the nurses surveyed believed that there should be a supporter to transmit bad news.

5. CONCLUSION

According to the findings, medical staff tried to announce bad news to the patient after making sure that he was infected and to seek help from other people to cooperate in transmitting the news of COVID-19 infection.

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Informed Consent

Written informed consent was obtained from eligible patients in their native language (Persian).

Ethical Consideration

Kermanshah University of Medical Sciences, Kermanshah, Iran (IR.KUMS.REC.1399.152)

Authors' contributions

MK, FS, DS, MB, AS participated to the conceptualization of the manuscript. MK, FM wrote the first draft with the help of SM. AT, SM, FA, MK, FM contributed to the writing, editing, and critical evaluation of the manuscript. The authors approved the submission of the final version of the manuscript.

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Conflict of Interest

The authors declare no conflict of interest.

Data and materials availability

All data associated with this study are present in the paper.

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